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CLAIMS

What is claimed is:

1   1.   A method of determining the economic impact of business policies,

2   comprising the steps of:

3   a) defining a plurality of players including an associated set of rules

4   defining a possible decision space, a decision-making process tree, an

5   information set, an outcome function , and a payoff function for each

6   player;

7   b) translating the player definitions into codified scripts; and

8   c) executing the codified script wherein the result of the outcome

9   and payoff functions at the end of execution of a script stage determines

10   the economic impact of the business policies defined by the rules.

1   2.   The method of claim 1 wherein the players are exclusively human.

1   3.   The method of claim 1 wherein the players comprise a combination

2   of human and automated players.

1   4.   The method of claim 1 further comprising the steps of:

2   d)   modifying the associated set of rules for one or more players;

3   and

4   e)   repeating steps b)-c).

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1   5.   The method of claim 1 further comprising the step of:

2   d)   providing qualitative calibration data for the defined players

3   based on empirical sales information, wherein the scripts are generated in

4   accordance with the player definitions and the calibration data.

1   6.   The method of claim 1 further comprising the steps of:

2   d)   providing a plurality of scenarios defining variations on the

3   set of rules associated with one or more players, wherein step c) further

4   comprises the step of generating scripts corresponding to the player

5   definition variations.

1   7.   The method of claim 1 wherein the scripts are compiled on the fly

2   during execution.

1   8.   The method of claim 1 wherein the scripts are compiled in their

2   entirety before execution.

1   9.   The method of claim 1 wherein the set of rules associated with at

2   least one player defines at least one business policy from the set

3   comprising: advertising policy, sales policy, returns policy, rebate policy,

4   minimum advertised price policy.

1   10.   An apparatus for determining the economic impact of business

2   policies, comprising:

3   a) a business process definition module for defining a plurality of

4   players including an associated set of rules defining a possible decision

5   space, a decision-making process tree, an information set, an outcome

6   function , and a payoff function for each player;

7   b) a script translator module for translating the player definitions

8   into codified scripts, wherein the codified scripts define at least one

9   simulation stage; and

10   c) a simulation module for executing the codified scripts, wherein

11   the result of the outcome and payoff functions at the end of execution of

12   the at least one script stage determines the economic impact of the

13   business policies defined by the rules.

1   11.   The apparatus of claim 10 wherein the players are exclusively

2   human.

1   12.   The apparatus of claim 10 wherein the players comprise a

2   combination of human and automated players.

1   13.   The apparatus of claim 10 further comprising:

2   d)   a calibration module providing qualitative calibration data

3   for the defined players based on empirical sales information, wherein the

4   scripts are generated in accordance with the player definitions and the

5   calibration data.

1   14.   The apparatus of claim 10 further comprising:

2   d)   a scenario database providing a plurality of scenarios defining

3   variations on the set of rules associated with one or more players, wherein

4   the script translator generates scripts corresponding to the player definition

5   variations.

1   15.   The apparatus of claim 10 wherein the scripts are compiled on the

2   fly during execution.

1   16.   The apparatus of claim 10 wherein the scripts are compiled in their

2   entirety before execution.

1   17.   The apparatus of claim 10 wherein the set of rules associated with at

2   least one player defines at least one business policy from the set

3   comprising: advertising policy, sales policy, returns policy, rebate policy,

4   and minimum advertised price policy.

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1   18.   A method of predicting the behavioral outcome resulting from a

2   business rule comprising the steps of:

3   a)   defining at least one player, business rules, and an

4   environment that defines actions that the player can take in accordance

5   with the business rules;

6   b)   translating the definitions into a codified script; and

7   c)   determining a behavioral outcome resulting from

8   player-selected actions during execution of the codified script.

1   19.   The method of claim 18 wherein the behavioral outcome includes

2   an economic state of each player.

1   20.   The method of claim 18 further comprising the step of:

2   d)   executing variations of the codified script to identify business

3   rules and environment definitions that result in a pre-determined

4   economic state.